

EXECUTIVE SUMMARY

Something's in the Water

A System Analysis on Quality and Transparency in Allegheny County Community Water Systems

A report produced by: Women for a Healthy Environment

Women for a Healthy Environment (WHE) is a nonprofit organization whose mission is to educate and empower community members to act as ambassadors about environmental risks so they can make healthy choices for themselves and their family and advocate for change for a better tomorrow for all. Through educational programming, technical assistance and advocacy, the organization focuses on creating healthy environments in three key areas: homes, schools and early learning centers.

For a complete list of recommendations and resources for Allegheny County water system consumers, visit the website: www.WomenForAHealthyEnvironment.org

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Background

Women for a Healthy Environment staff analyzed Allegheny County water systems' operational and communications capacity, public accessibility and transparency of information, adherence to drinking water quality standards, and strategies to reduce lead in drinking water exposure. Of the 36 water systems we contacted:

- 28 systems replied in full.
- 8 did not complete the Right to Know request in full, of which 3 never replied to the request and 5 replied but never submitted complete documentation.

Despite the disparity in responses, for some measures, we were able to glean information from water system websites or other sources to report a nearly complete dataset.

In addition, the report contains the results of a Pennsylvania Department of Environmental Protection (DEP) database search on a selection of disinfectant and disinfectant byproducts and the exceedances of federal thresholds. Finally, the report concludes with a transparency analysis of each water authority to assess what information is made available to the public.

Of the 36 water systems in Allegheny County, 30 percent utilize surface water, 3 use groundwater, 18 use purchased surface water and one system uses purchased groundwater. With this information in mind, it is important to understand the regulatory differences between purchased surface water and surface water, as well as purchased groundwater and groundwater.

The following are a few key findings from the report:

- Most water systems in Allegheny County are publicly owned.
- Water systems serving Allegheny County may be understaffed and under-resourced.
- Since 2016, more than half of the community water systems had water quality-related violations.¹
- 80 percent of water systems² reported detectable levels of lead in their drinking water in their 2019 Consumer Confidence Reports.
- Water systems could improve their accessibility and risk communication to consumers.

Variations In Water Systems

Funding

There is much variation in how water systems fund day-to-day operations as well as larger projects such as lead service line replacement. They primarily receive financial support from the following channels: rates, grants, municipal bonds, and low interest loans.

Water systems that treat water in-house and distribute it to other systems experience more regulations imposed by the DEP. As such, they have the monetary advantage of receiving more funds from their ratepayers. Conversely, systems that purchase water have less regulations to follow; However, these systems are typically replete in resources because they utilize much of their funds to simply purchase water in accordance with their source's rates.

Investor-owned or investor-influenced water systems tend to be more expensive and less transparent. Despite the fact that public water systems may not currently perform as best as they can, it is imperative to note that this performance is a result of inadequate state and federal investment in the maintenance and improvements of our aging infrastructure. This report and its findings do not make the case for the privatization of water systems. Instead, regionalization and collaboration across water systems, along with the allocation of significant public funding, are key to community water systems' success.

¹ Violations accounted for in this report are from 2016 through the conclusion of data collection on March 25, 2020.

² 35 of the 36 systems had available CCR results from 2019



Lead Data

For this report, we chose to highlight lead violations in Allegheny County, outlining the following for each water authority: 90th percentile in light of the action level of 15 ppb, the required sample size, the actual number of samples conducted, the number of lead service line replacements, the mapped inventory of lead service lines, whether or not the authority provides free testing, the method of communication to consumers, and the corrosion control method. It is important to note that, though the action level is currently 15 ppb, environmental health specialists agree that there is no “safe” level of lead. This is because, even at some of its lowest levels, lead can cause significant health complications. **As such, the EPA states that there is no safe level of lead in drinking water.**³

We sought to determine whether the ratepayer could easily find information on lead. When collecting this information in September and October of 2019, two-thirds of water systems failed to post information regarding lead hazards while the other one-third posted resources and information.

To better understand lead sampling, we used data from the 2018 and 2019 consumer confidence report posted on the majority of water system websites. Most water systems—62.9 percent—are above 0 ppb but below 10 ppb. The 10 ppb to 15 ppb range, which accounts for 14.3 percent of water systems, is a range of concern. Specifically, based on the revised Lead and Copper Rule (December 22, 2020) an additional 14.3 percent of water systems will be above the 10 ppb trigger level. This, in turn, means that these water systems will be required to develop plans for lead service line replacement and reduce lead exposure within their systems.

Of the 36 systems that received Right to Know requests, eight systems reported partial replacements on the public side, three reported partial replacements on the private side, and five reported total lead service line replacements since January 1, 2015.

Those water systems that purchase water do not have to evaluate corrosion control treatment when their systems are in exceedance of the federal Lead and Copper Rule and, similarly, they have to collect fewer samples annually. However, the replacement of lead service lines falls to each individual water system, regardless of where their water comes from.

Most water systems do not have a lead service line inventory, and a minority have the ability to conduct full lead service line replacements. Lead in drinking water testing is often not offered, and of those that do, only three systems confirmed there is no charge for this service.

The predominant source of financial support for lead service line replacement in the commonwealth is PennVest. Many systems that need the most help do not qualify for PennVest financing and other sources of support, because they do not have sufficient capital. When these systems do not qualify for this support, they must generate revenue internally, typically via rate increases. In 2021, PennVest is implementing a new Lead Line Replacement project, that will allocate an additional \$90 million.

Chemical Sampling Data

For the report, we chose to examine the following chemicals for their prevalence in Allegheny County and Pennsylvania at large: barium, chlorine, perfluorooctanesulfonic acid (PFOS), perfluorooctanoic acid (PFOA), radium, arsenic, nitrate, trihalomethanes, and haloacetic acids. We found that the sampling numbers of haloacetic acids, trihalomethanes, chlorine, and nitrate are consistent with DEP monitoring requirements based on consumer size.

³ Council on Environmental Health. (July 2016). *Prevention of Childhood Lead Toxicity*. <https://pediatrics.aappublications.org/content/138/1/e20161493>



Four types of violations since 2016⁴ were included for analysis: Total Violations, Maximum Contaminant Level Exceedance, Failure to Monitor, Consumer Confidence Report Not Submitted, and Failure to Issue Public Notice. Most violations were failures to monitor, meaning the minimum number of water samples required for any one contaminant was not obtained. Other violations were due to a failure to submit an annual Consumer Confidence Report and a failure to notify ratepayers of potential threats to drinking water quality.

Transparency Report

Local municipalities have oversight of 33.3 percent of the community water systems in Allegheny County. These systems are managed by a water department within the municipalities, and elected officials provide the highest level of oversight. 63.9 percent of community water systems in Allegheny County are overseen by a Board of Directors, often appointed by local elected officials. In these cases, water systems are referred to as “water authorities.” Finally, 2.8% of community water systems in Allegheny County are investor-owned, meaning they do not have a public-facing body providing oversight.

The report found that, of the water systems that elaborated on their risk communication schema, about half do not issue boil advisories and more than half do not have a formal grievance procedure for residents.

Conclusion

While information collected in this report on water quality violations and lead in drinking water levels are publicly available online, locating and interpreting information can be quite burdensome for ratepayers.

A notable barrier facing most water systems is the capacity to integrate public health best practices. This includes risk communication to consumers that is easily understood and promptly disseminated or primary prevention of problems, such as lead exposure through proactive lead service line replacements. A regional conversation between Allegheny County water systems, ratepayers, and public health entities must occur in order to develop sustainable solutions that will increase capacity and transparency of water systems and protect the health of community drinking water.

Key Recommendations

Community Water Systems:

- Boost collaboration across water systems, promoting the sharing of resources, technical expertise and best practices across the region.
- Provide education on water contaminants and their public health impacts to water system leadership and board members (if applicable).
- Consult with at least one public health representative in all executive decisions pertaining to water quality and have at least one public health representative serving on the board (if applicable).
- Improve internal record-keeping systems, such as asset management systems.
- Build lead service line inventories, and publicly track replacements as part of broader projects to electronically map and record all system assets, utilizing state organizations such as the Department of Environmental Protection Capability Enhancement Program that offers their services free of cost.
- Strengthen technical, financial, and managerial capacities in order to ensure eligibility for PennVest that would cover the cost of full lead service line replacements.
- Create a robust community engagement plan.
- Commit to ceasing all partial lead service line replacements.

The Commonwealth of Pennsylvania:

- Require full replacements of lead service lines; and
- Increase its financial investment in public infrastructure.

⁴ Violations accounted for in this report are from 2016 through the conclusion of data collection on March 25, 2020.

